



374387

**SITE ASSESSMENT REPORT
FOR THE
PLATE-RITE PLATING SITE
DAYTON, MONTGOMERY COUNTY, OHIO
SITE ID NO. B5YL**

NPL STATUS: NON-NPL

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region V

Emergency Response Branch

26 West Martin Luther King Drive, Office G-41

Cincinnati, OH 45268

Prepared by:

WESTON SOLUTIONS, INC.

4710-A Interstate Drive

Cincinnati, OH 45246

Date Prepared:	August 31, 2010
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WESTON START Project Manager:	Randy Kirkland
Telephone No.:	(937) 602-3089
U.S. EPA On-Scene Coordinator:	Steven L. Renninger

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August 31, 2010

Prepared by:  Date: August 31, 2010
John Sherrard
WESTON START Project Leader

Reviewed and
Approved by:  Date: August 31, 2010
Randy Kirkland
WESTON START Project Manager

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LIST OF ACRONYMS AND ABBREVIATIONS

°F	Degree Fahrenheit
CFR	<i>Code of Federal Regulations</i>
HTFD	Harrison Township Fire Department
mg/kg	Milligram per kilogram
mg/L	Milligram per liter
mg/m ³	Milligram per cubic meter
MV	Master Vision Plating, LLC
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
OEPA	Ohio Environmental Protection Agency
PPE	Personal protective equipment
PR	Plate-Rite
RCRA	Resource Conservation and Recovery Act
START	Superfund Technical Assessment and Response Team
SU	Standard unit
TCLP	Toxicity Characteristic Leaching Procedure
TDD	Technical Direction Document
U.S. EPA	United States Environmental Protection Agency
WESTON	Weston Solutions, Inc.

1. INTRODUCTION

The United States Environmental Protection Agency (U.S. EPA) tasked the Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) to assist U.S. EPA in performing a site assessment at the Plate-Rite (PR) Plating Site in Dayton, Montgomery County, Ohio (the Site) (see Figure 1-1). Under Technical Direction Document (TDD) No. S05-0001-1006-039, WESTON START was directed to perform the following activities:

- Compile available site information;
- Develop site-specific safety and field sampling plans;
- Perform a site reconnaissance;
- Collect plating tank, drum, and container samples;
- Procure analytical laboratory services;
- Provide photographic documentation of the Site (see Appendix A);
- Validate analytical data (see Appendix B);
- Evaluate potential threats posed by the Site to human health and the environment; and
- Prepare and deliver this site assessment report.

The site assessment was performed to evaluate Site conditions and possible threats to human health, public welfare, and the environment in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), Title 40 of the *Code of Federal Regulations* (40 CFR), Part 300.415(b)(2).

This site assessment report is organized into the following sections:

- **Introduction** – Provides a brief description of the objective and scope of the site assessment.
- **Site Background** – Details the Site description and history.
- **Site Assessment Activities** – Discusses observations made and the methods and procedures used during the site assessment.
- **Analytical Results** – Discusses analytical results for samples collected during the site assessment.

- **Threats to Human Health and the Environment** – Identifies conditions at the Site that warrant a removal action under the NCP.
- **Conclusions** – Provides a summary of the site assessment findings.

Figures and tables are presented after the conclusion of each section. Appendix A provides photographic documentation of Site conditions and activities during the site assessment, and Appendix B provides the data validation report and validated analytical results for samples collected during the site assessment.

2. SITE BACKGROUND

This section discusses the Site description and history.

2.1 SITE DESCRIPTION

The Site is located at 5311 Webster Street in Dayton, Montgomery County, Ohio. The Site's geographical coordinates are 39° 49' 2.28" North latitude and 84° 10' 51.996" West longitude. The Site includes one 13,000-square-foot building. Figure 1-1 shows the site location. The Site is located in a mixed residential, commercial, and industrial area. The Site is bordered to the north by a residential property, to the south by a commercial building, to the east by a residential property and Webster Street, and to the west by a wooded area. The Site is located within 200 feet of residential areas and within 500 feet of commercial businesses. Figure 2-1 shows the site layout. The Site is also located approximately 1.5 miles north of the Great Miami River.

2.2 SITE HISTORY

Electroplating operations began at the Site in 1985 and ceased in 2007. Bohn-Jur, Co., is the current Site owner.

In February 1985, the Plate-Rite Co., Inc., began plating operations at the Site and provided product to various industries such as the medical, food service, appliance, automotive, and tool room industries. The company electroplated a host of surfaces, including aluminum, cast iron, carbon steel, stainless steel, brass, copper, and zinc castings. The company also worked with plating finishes that included copper, multi-layer nickel, zincating, decorative chrome, polished nickel chrome, nickel plate satin finish, and gold. On August 3, 2005, the company voluntarily dissolved.

In December 2005, Master Vision Plating, LLC (MV), was formed. MV leased the Site from the Bohn-Jur, Co., and conducted electroplating operations until 2007.

On June 1, 2010, the Harrison Township Fire Department (HTFD) conducted a fire safety inspection at the on-site building. The HTFD found numerous fire code violations and also observed the following:

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1109-2A-AHFT

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- 21 plating tanks (approximately 1,000 gallons each) with liquids and solids;
- Three underground storage pits;
- 150 to 200 containers having volumes of 55 gallons or less, most containing cyanides, acids, nickel, copper, and alkalines;
- One pallet of flammable material (paints);
- A laboratory with numerous small containers of chemicals;
- Spillage between tanks in the dip tank room; and
- Leaking 55-gallon drums.

The HTFD stated that since 2007, local authorities have had to respond to reports of breaking and entering of the Site on eight different occasions. The most recent break-in occurred the weekend of July 17, 2010.

On June 18, 2010, the HTFD submitted a letter to U.S. EPA requesting assistance in conducting a time-critical removal action at the Site.

On August 17, 2010, the Ohio Environmental Protection Agency (OEPA) requested assistance from the U.S. EPA in conducting a potential time-critical removal action involving numerous abandoned plating tanks, drums, and containers of plating waste at the Site.

3. SITE ASSESSMENT ACTIVITIES

On July 22, 2010, U.S. EPA and WESTON START conducted a site assessment to document Site conditions and evaluate the Site for a potential time-critical removal action. The Site observations and sampling activities are discussed below. Appendix A provides photographic documentation of Site conditions and activities during the site assessment.

3.1 SITE OBSERVATIONS

On July 22, 2010, U.S. EPA and WESTON START mobilized to the Site to conduct the site assessment. The Site was abandoned, and the property was surrounded by a 6-foot-high chain-link fence. Entrance to the Site was through an electric gate. Electricity to the on-site building had been turned off through circuit breakers inside the building, but the circuit breaker that operates the front gate was turned on by the Site owner. Evidence of trespassing was observed through a door located on the north side of the building. The door knob and locking mechanism had been severely damaged by pry bars and sledge hammers. The HTFD initially observed the damaged door and reported it to the U.S. EPA on July 20, 2010. On the same day, U.S. EPA immediately tasked WESTON START to hire a local locksmith to secure the door and to install a steel slide bolt for added security before the U.S. EPA site assessment.

Upon entering the on-site building, WESTON START conducted preliminary air monitoring using a MultiRAE photoionization detector and a single-gas hydrogen cyanide meter. Readings for volatile organic compound, carbon monoxide, hydrogen sulfide, or hydrogen cyanide concentrations or oxygen or lower explosive limit were not observed exceeding background levels.

During the site assessment, WESTON START observed approximately 21 plating tanks, three underground pits, a laboratory, and approximately 200 55-gallon drums and other containers. In addition, WESTON START observed approximately 100 empty 55-gallon drums west of the facility. Figure 3-1 shows the site features, including a diagram of the main plating line. The plating tanks, drums, and containers were deteriorated, with contents spilled onto the floor and near drain areas. WESTON START also observed open plating tanks containing liquids and sludges or solids.

The plating tanks had labels such as "Chrome Saver," "Chrome," "Acid Salts," "Cyanide Copper,"
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and "Corrosive." Three underground storage pits were observed east of the main plating line. Information reviewed at the Site revealed that the underground pits were used to treat heavy metals-contaminated water prior to discharge to the local sewer system. Numerous drums labeled "Chrome Saver" were staged next to the underground pits.

WESTON START also observed plastic and fiber drums with various labels such as "Copper Cyanide," "Zinc Cyanide," "Hydrochloric Acid," "Sulfuric Acid," and "Cyanogen." Fiber drums labeled as containing cyanide powder were deteriorating and stored within 20 feet of drums and containers with "Corrosive" and "Sulfuric Acid" labels. In addition, the laboratory was observed to contain numerous small containers of acids, caustics, poisons, and flammable liquids.

3.2 SAMPLING ACTIVITIES

To evaluate if the Site poses a threat to human health, public welfare, and the environment, WESTON START collected 15 liquid and 4 solid waste samples from various plating vats, drums, and containers and from the floor of the on-site building. Table 3-1 summarizes the investigative waste samples collected from the Site. The sampling activities were conducted in Level B personal protective equipment (PPE) with self-containing breathing apparatuses in accordance with the approved Site-specific health and safety plan. Each sample is described below.

Sample S-1 consisted of a clear liquid from a laboratory bottle labeled "Sodium Hydroxide." Samples S-2, S-3, and S-4 all consisted of clear liquids from laboratory bottles labeled "Sulfuric Acid," "Hydrochloric Acid," and "Nitric Acid," respectively. Sample S-5 consisted of a clear liquid from a laboratory bottle labeled "Flammable Liquid." Sample S-6 consisted of a green liquid from a plating tank with an "Acid" label. Sample S-7 consisted of a light-brown liquid from a plating tank with a "Cyanide" label. Sample S-8 consisted of white powder from a 30-gallon fiber drum with a "Copper Cyanide" label. Sample S-9 consisted of a brown-orange liquid from a plating tank with a "Chrome" label. Sample S-10 consisted of a brown-orange liquid from a plating tank with a "Chrome Saver" label. Sample S-11 consisted of a brown liquid from a 55-gallon drum labeled "Chrome Pit." Samples S-12 and S-13 both consisted of clear liquids from 30-gallon plastic drums labeled "Sulfuric Acid" and "Hydrochloric Acid," respectively. Sample S-14 consisted of a green

liquid from a plating tank labeled "Acid." Sample S-15 was a composite of various white floor solids from around the plating line. Samples S-16 and S-17 consisted of white powders from 30-gallon fiber drums labeled "Zinc Cyanide" and "Cyanogen," respectively. Sample S-18 consisted of clear liquid from a 1-gallon container labeled "Paint Thinner." Sample S-19 consisted of a brown liquid from an 8-ounce container labeled "Flammable Liquid."

Fresh sampling gloves were donned before sampling activities began at each new sampling location as necessary. Liquid samples were collected either using disposable plastic coliwasa samplers or by pouring the liquid sample into glass sample jars if the sampled container size was 5 gallons or less. Solid waste samples were collected using disposable polyethylene scoops. The 15 liquid and 4 solid waste samples were submitted under chain of custody to Belmont Labs of Englewood, Ohio, under analytical TDD No. S05-0001-1006-040, for the following combination of analyses: pH, Toxicity Characteristic Leaching Procedure (TCLP) Resource Conservation and Recovery Act (RCRA) metals, total cyanide, and flashpoint. WESTON START requested a turnaround time of 7 calendar days. Section 4 discusses the analytical results.

4. ANALYTICAL RESULTS

WESTON START collected 15 investigative liquid and 4 investigative solid waste samples from the Site for analysis by Belmont Labs in Englewood, Ohio. Liquid waste samples S-5, S-18, and S-19 were analyzed for flashpoint using ASTM D-56-05. Liquid waste samples S-1 through S-4, S-6, S-7, and S-9 through S-14 were analyzed for pH using U.S. EPA Method 4500 H+. Liquid waste sample S-7 and solid waste samples S-8 and S-15 through S-17 were analyzed for total cyanide using U.S. EPA Method 335.4. Liquid waste samples S-6 and S-9 through S-11 and solid waste sample S-15 were analyzed for TCLP RCRA metals using U.S. EPA SW-846 Methods 6010B and 7470.

Table 4-1 summarizes the waste sample analytical results. Appendix B provides the data validation report and validated laboratory analytical results for the samples. Analytical results for corrosivity, toxicity, reactivity, and ignitability were compared to the hazardous waste criteria outlined in 40 CFR, Part 261, Subpart C. Laboratory analytical results for the liquid and solid waste samples are summarized below.

- **Ignitability – Flashpoint:** The flashpoint results for investigative liquid waste samples S-5 and S-19 were both 73.2 degrees Fahrenheit (°F). Both results are less than 140 °F. Therefore, according to 40 CFR 261.21, the liquid waste samples meet the definition of hazardous waste by virtue of the characteristic of ignitability.
- **Corrosivity - pH:** The pH results for liquid waste samples S-2 through S-4, S-6, S-9, S-10 and S-12 through 14 all are less than 2.0 standard units (SU), and the pH result for liquid waste sample S-1 is greater than 12.5 SUs. Therefore, according to 40 CFR 261.22, these liquid waste samples meet the definition of hazardous waste by virtue of the characteristic of corrosivity.
- **Reactivity – Total Cyanide:** Liquid waste sample S-7 and solid waste samples S-8 and S-15 through S-17 contained total cyanide at concentrations of 88,600 milligrams per liter (mg/L); 244,000 milligrams per kilogram (mg/kg); 64.7 mg/kg; 350,000 mg/kg; and 438,000 mg/kg, respectively. The liquid waste sample and the four solid waste samples are cyanide-bearing waste samples. Therefore, according to 40 CFR 261.23, the waste samples meet the definition of hazardous waste by virtue of the characteristic of reactivity.
- **Toxicity - TCLP RCRA Metals:** Liquid waste samples S-6, S-9, S-10, and S-11 contained TCLP chromium at concentrations of 484; 26,600; 222,000; and 11,800 mg/L, respectively. The TCLP chromium concentration in each of these four liquid waste samples exceeds the TCLP chromium regulatory limit of 5.0 mg/L. Liquid waste sample S-6 contained TCLP cadmium at concentration of 3.40 mg/L, which exceeds the TCLP cadmium regulatory limit

of 1.0 mg/L. Liquid waste sample S-10 contained TCLP arsenic at a concentration of 17.1 mg/L, which exceeds the TCLP arsenic regulatory limit of 5.0 mg/L. Liquid waste sample S-10 also contained TCLP lead at a concentration of 45.8 mg/L, which exceeds the TCLP lead regulatory limit of 5.0 mg/L. Therefore, according to 40 CFR 261.24, the four liquid waste samples meet the definition of hazardous waste by virtue of the characteristic of toxicity.

5. THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Factors to be considered when determining the appropriateness of a potential removal action at a site are delineated in the NCP at 40 CFR 300.415(b)(2). The factors applicable to the Site are summarized below.

- **Actual or potential exposure of nearby human populations, animals, or the food chain to hazardous substances or pollutants or contaminants**

Commercial businesses are located within 500 feet of the Site, and residences are located within 200 feet of the Site. The Site is fenced and the doors are locked, but since 2007, there have been eight reports of trespassing, most recently during the weekend of July 17, 2010. Even though Site access is restricted, trespassing may still occur and an accidental or intentional release of hazardous materials, contact with hazardous materials, and a reaction that generates toxic gases (hydrogen cyanide) are possible. The close proximity of residential areas and commercial businesses to the Site would greatly increase the likelihood of human health and environmental impacts if a release occurs. The plating tanks and drums are located inside the on-site building, with little or no secondary containment. Potential exposure could cause imminent endangerment to human health and the environment.

During the site assessment, WESTON START documented abandoned chemical wastes in tanks, drums, and containers at the Site. Based on analytical results for samples collected during the site assessment, the drums and containers contain corrosive, caustic, and flammable liquids, and the plating tanks and drums contain TCLP arsenic (D004), TCLP cadmium (D006), TCLP chromium (D007), TCLP lead (D008), and cyanide-bearing toxic wastes. The characteristics and effects of exposure to arsenic, cadmium, chromium, lead and cyanide are summarized below.

Arsenic - Exposure to arsenic can occur through ingestion, inhalation, or skin absorption. Once absorbed, arsenic is widely distributed throughout the body tissues, including the liver, abdominal viscera, bone, and skin. Acute arsenic poisoning in humans is usually through accidental or intentional ingestion. Although rare, acute poisoning may be followed by difficulty swallowing, irritation of the mouth, epigastric pain, vomiting, and diarrhea, followed by stupor, coma, and death. Long-term arsenic exposure is linked to liver, lung, prostate, bladder, kidney, and non-melanoma skin cancers. Arsenic apparently is not linked to Non-Hodgkin's lymphoma or other leukemias.

Cadmium - Inhalation of high levels of cadmium can severely damage the lungs. Ingestion of food or drinking water with very high cadmium levels severely irritates the stomach, leading to vomiting and diarrhea. Long-term exposure to lower levels of cadmium in air, food, or water leads to a buildup of cadmium in the kidneys and possible kidney disease. Other long-term effects are lung damage and fragile bones.

Chromium - Chromium is a naturally occurring element. However, hexavalent chromium is generally produced by industrial processes such as chrome plating and finishing. The health effects of exposure to trivalent and hexavalent chromium have been researched and are well

documented. Existing information about chromium, especially hexavalent chromium, is mainly related to worker exposure. Plating industry workers and workers in other industries that use chromium are most susceptible to toxic levels. Hexavalent and trivalent chromium both can be toxic at high levels. However, hexavalent chromium is the most toxic form. Chromium is listed as a D007 hazardous waste.

Lead - Lead enters the human body (the exposure pathway) through ingestion and inhalation.

Lead is a carcinogen, and the long-term health effects of lead can be severe. Long-term exposure may affect development of the nervous systems of young children. Significant exposure can cause learning difficulties and stunted growth in children. At high levels, reaction time may decrease, and memory loss and possible weakness may occur in the fingers, wrists, or ankles.

Children are at a greater risk from exposure to lead than adults because (1) children absorb and retain a larger percentage of ingested lead per unit of body weight than adults, which increases the toxic effects of the lead; (2) children's brains and nervous systems are more sensitive to the damaging effects of lead; and (3) frequent hand-to-mouth activity increases children's contact with lead in the environment, particularly to lead-contaminated dust and soil. Diagnosing lead poisoning can be difficult because of a lack of symptoms or because the symptoms may signify another condition.

Cyanide - Cyanide compounds are used in plating baths because they accommodate a wide range of electrical current, remove tarnish and other undesirable films from surfaces to be plated, and cause the formation of even metal deposit that has lower sensitivity to impurities present in the bath. Metal coating operations for cadmium, iron, gold, and zinc often use cyanide compounds. Cyanide typically complexes with plating metals or is present as sodium cyanide or potassium cyanide added to the bath.

Cyanide exposure pathways include inhalation, ingestion, and absorption through skin or mucous membranes. Most cyanides are acutely poisonous. Overexposure interferes with the operation of the metabolic system and can cause rapid death. Cyanide is not bioaccumulated or stored in humans or animals. Cyanide is extremely toxic to humans. Acute (short-term) inhalation exposure to 100 milligrams per cubic meter (mg/m^3) or more of hydrogen cyanide will cause death in humans. Acute exposure to lower concentrations (6 to 49 mg/m^3) of hydrogen cyanide will cause a variety of effects in humans, such as weakness, headache, nausea, increased respiration rate, and eye and skin irritation. Chronic exposure to cyanide in humans through inhalation results in central nervous system effects, such as headaches, dizziness, numbness, tremor, and loss of visual acuity. Other effects in humans include cardiovascular and respiratory effects, enlarged thyroid gland, and irritation of the eyes and skin.

- **Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release**

During the site assessment, WESTON START observed and documented the presence of approximately 21 plating tanks, three underground pits, a laboratory, and approximately 200 55-gallon drums and small containers of solid and liquid wastes located throughout the on-site building. Investigative waste samples confirmed the presence of corrosive, toxic,

reactive (cyanide), and ignitable hazardous wastes at the Site. Numerous plating tanks, drums, and containers were uncovered and deteriorating, with the contents spilled onto the floor. Continued deterioration of the drums may allow additional quantities of hazardous substances to migrate into the environment.

As discussed above, trespassing could result in an accidental or intentional release of hazardous materials; contact with hazardous materials; and a reaction that generates toxic gases (hydrogen cyanide), such as when acid liquids mix with cyanide-bearing wastes. The close proximity of the Site to residential areas and commercial businesses greatly increases potential threats to human health and the environment if a release occurs.

- **Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released**

Southwestern Ohio receives a substantial amount of precipitation during spring, and winter temperatures are normally below freezing, with regular snowfall. Weather conditions will contribute to the further deterioration of the building. The building is abandoned, and electricity service is active but is not regularly turned on to prevent freezing and thawing of the contents in the containers.

- **Threat of fire or explosion**

Site assessment results indicate two liquid waste samples with a flashpoint of 73.2 °F, which meets the criterion for hazardous waste by virtue of the characteristic of ignitability according to 40 CFR 261.21. Therefore, the potential for a fire or explosion exists. If such an event occurs, contaminants could become airborne and may affect the nearby population.

- **The availability of other appropriate federal or state response mechanisms to respond to the release**

In a letter dated June 18, 2010, the HTFD requested assistance from U.S. EPA to address unsafe conditions at the Site and to conduct a potential time-critical removal action. The HTFD noted that the Site was abandoned, that the on-site building contained numerous fire code violations, and that since 2007, there have been eight cases of trespassing on the Site property. In addition, the HTFD observed approximately 21 plating tanks; three underground storage pits; and approximately 200 drums and containers containing acids, caustics, flammables and cyanides.

In a letter dated August 17, 2010, the OEPA requested assistance from the U.S. EPA in conducting a potential time-critical removal action involving numerous abandoned plating tanks, drums, and containers of plating waste at the Site.

6. CONCLUSIONS

During the site assessment, WESTON START observed and documented the presence of approximately 21 plating tanks, three underground storage pits, a laboratory, and approximately 200 55-gallon drums and small containers of liquid and solid wastes located throughout the on-site building. WESTON START collected 15 investigative liquid waste and 4 investigative solid waste samples from plating tanks, 55-gallon drums, containers, and the floor in the building. Based on analytical results for samples collected during the site assessment, the drums and containers contain corrosive, caustic, and flammable liquids, and the plating tanks and drums contain TCLP arsenic (D004), TCLP cadmium (D006), TCLP chromium (D007), TCLP lead (D008), and cyanide-bearing toxic wastes.

Hazardous wastes identified at the Site exhibit the following characteristics:

- Ignitability;
- Corrosivity;
- Reactivity; and
- Toxicity.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets all five criteria for a removal action pursuant to 40 CFR 300.415(b)(2). Therefore, the Site poses an imminent and substantial threat to human health, public welfare, and the environment.

FIGURES



FIGURES

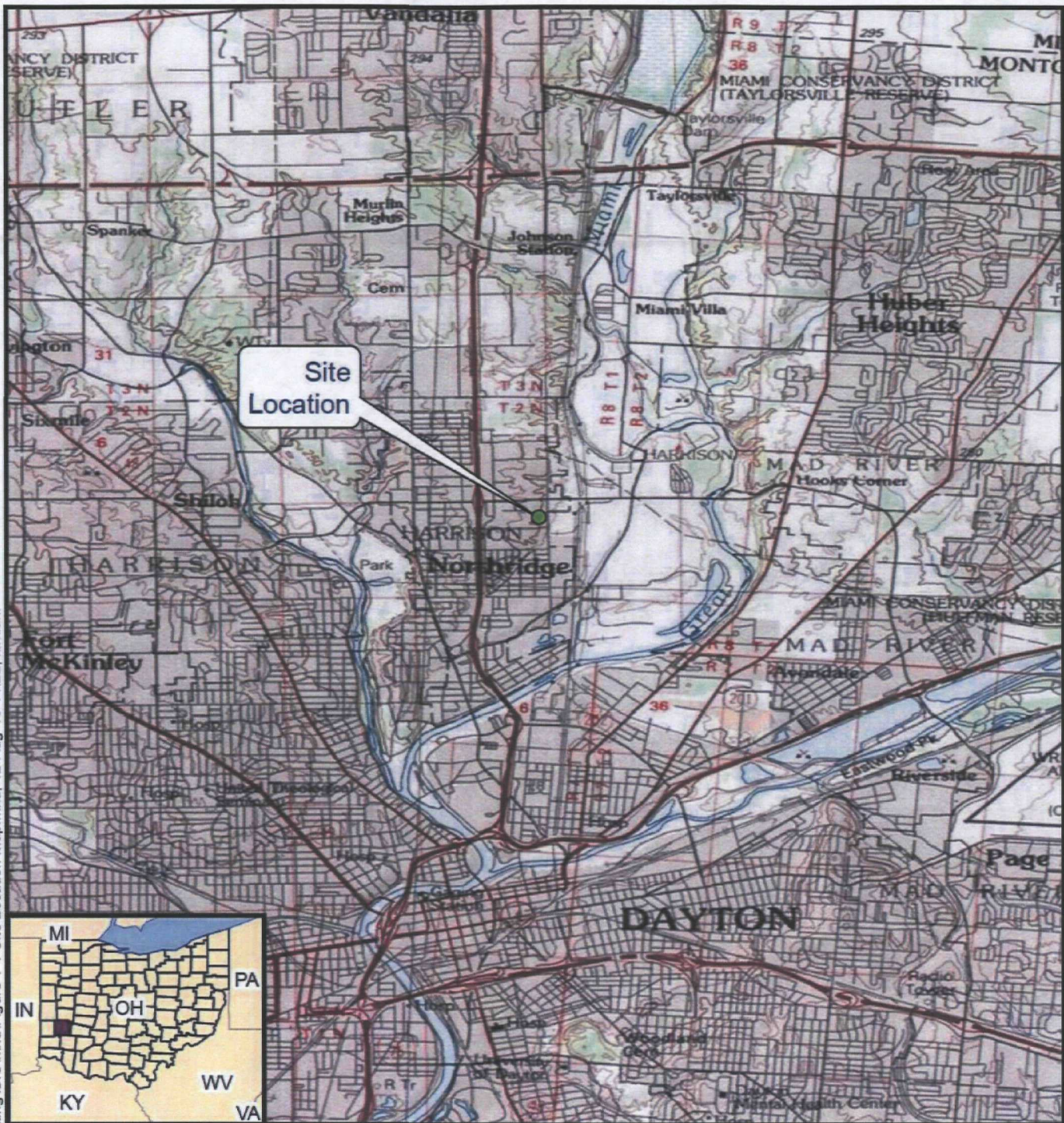


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Prepared for:
U.S. EPA Region 5
Contract No: EP-S5-06-04

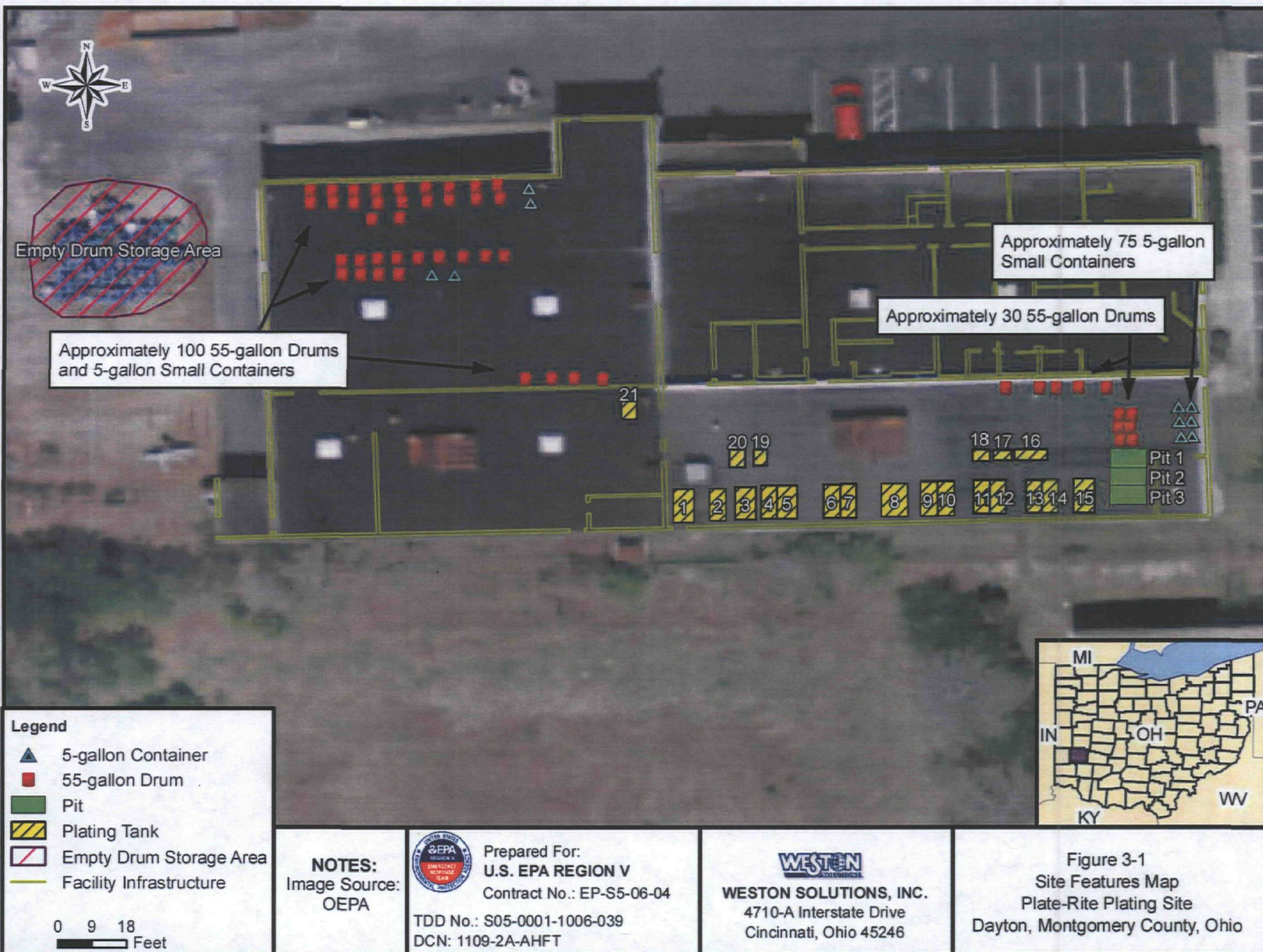
TDD No.: S05-0001-1006-039
DCN: 1109-2A-AHFT



Weston Solutions, Inc.
4710-A Interstate Drive
Cincinnati, OH 45246

Figure 1-1
Site Location Map
Plate-Rite Plating Site
Dayton, Montgomery County, Ohio







Weston Solutions, Inc.
4710-A Interstate Drive
Cincinnati, OH 45246
513-860-9102 • Fax 513-860-9105
www.westonsolutions.com

August 31, 2010

Mr. Steven L. Renninger
On-Scene Coordinator
Emergency Response Branch
U.S. Environmental Protection Agency Region V
26 West Martin Luther King Drive, Office G-41
Cincinnati, OH 45268

Subject: Plate-Rite Plating Site Assessment Report
Dayton, Montgomery County, Ohio
Technical Direction Document No.: S05-0001-1006-039
WESTON START Contract No.: EP-S5-06-04
Document Control No.: 1109-2A-AHFT

Dear Mr. Renninger:

The Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) is submitting the enclosed site assessment report for the Plate-Rite Plating Site in Dayton, Montgomery County, Ohio. If you have any questions or comments regarding the report or require additional copies, please contact me at (513) 703-3092 or Randy Kirkland (937) 602-3089.

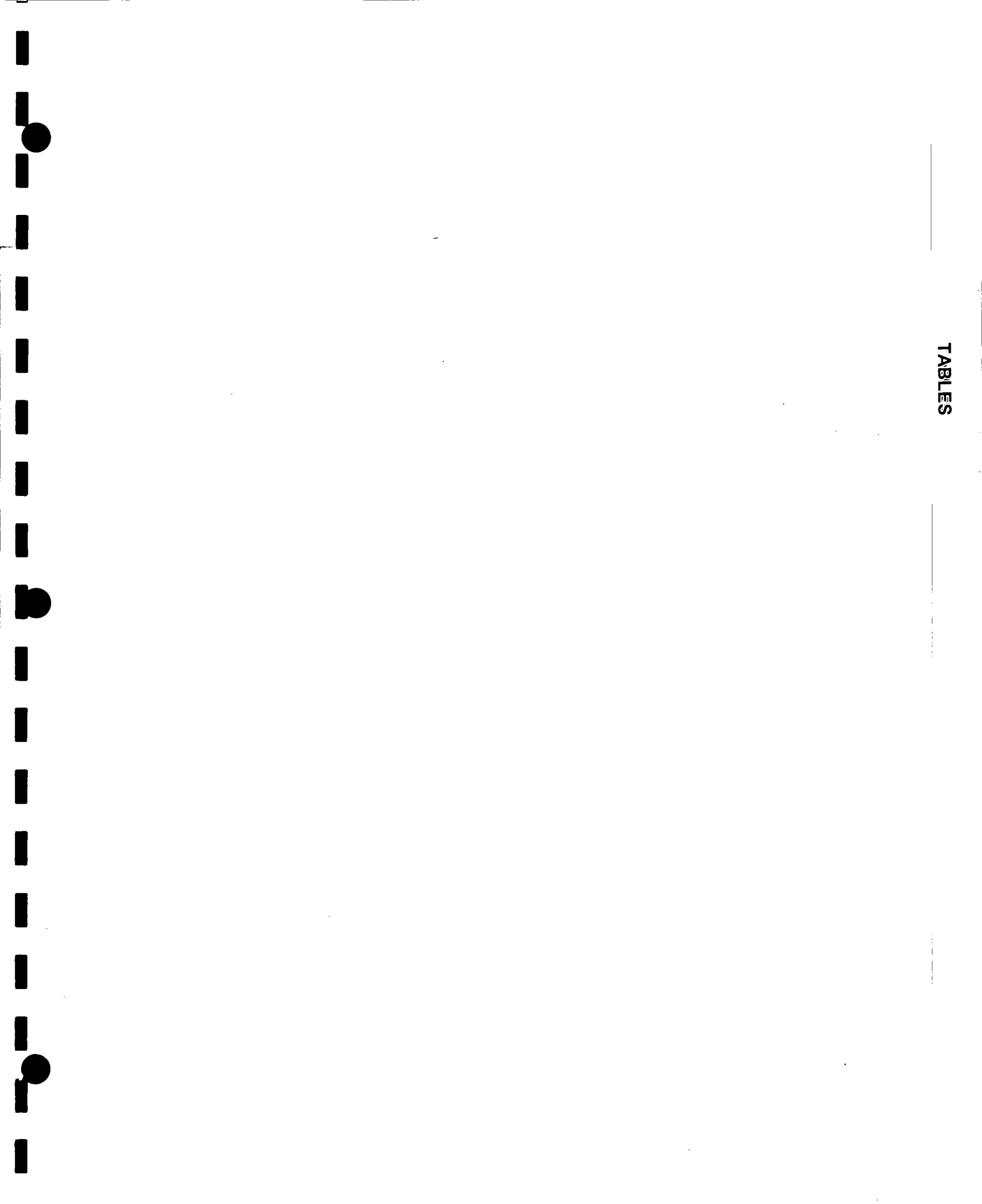
Sincerely,
WESTON SOLUTIONS, INC.

John Sherrard
WESTON START Project Leader

Randy Kirkland
WESTON START Project Manager

Enclosure

cc: WESTON START DCN File



TABLES

Table 3-1
Waste Sample Summary
Plate-Rite Plating Site
Dayton, Montgomery County, Ohio

Field Sample ID No.	Sampling Date	Sample Type	Sampling Location	Analytical Parameter(s)
S-1	7/22/2010	Grab, field sample	Laboratory bottle containing clear liquid labeled "Sodium Hydroxide"	pH
S-2	7/22/2010	Grab, field sample	Laboratory bottle containing clear liquid labeled "Sulfuric Acid"	pH
S-3	7/22/2010	Grab, field sample	Laboratory bottle containing clear liquid labeled "Hydrochloric Acid"	pH
S-4	7/22/2010	Grab, field sample	Laboratory bottle containing clear liquid labeled "Nitric Acid"	pH
S-5	7/22/2010	Grab, field sample	Laboratory bottle containing clear liquid labeled "Flammable Liquid"	Flashpoint
S-6	7/22/2010	Grab, field sample	Plating tank containing green liquid labeled "Acid"	pH and TCLP RCRA metals
S-7	7/22/2010	Grab, field sample	Plating tank containing light-brown liquid labeled "Cyanide"	pH and total cyanide
S-8	7/22/2010	Grab, field sample	30-gallon fiber drum containing white powder labeled "Copper Cyanide"	Total cyanide
S-9	7/22/2010	Grab, field sample	Plating tank containing brown-orange liquid labeled "Chrome"	pH and TCLP RCRA metals
S-10	7/22/2010	Grab, field sample	Plating tank containing brown-orange liquid labeled "Chrome Saver"	pH and TCLP RCRA metals
S-11	7/22/2010	Grab, field sample	55-gallon drum containing brown liquid labeled "Chrome Pit"	pH and TCLP RCRA metals
S-12	7/22/2010	Grab, field sample	30-gallon drum containing clear liquid labeled "Sulfuric Acid"	pH
S-13	7/22/2010	Grab, field sample	30-gallon drum containing clear liquid labeled "Hydrochloric Acid"	pH
S-14	7/22/2010	Grab, field sample	Plating tank containing green liquid labeled "Acid"	pH
S-15	7/22/2010	Composite, field sample	White floor solids	Total cyanide and TCLP RCRA
S-16	7/22/2010	Grab, field sample	30-gallon fiber drum containing white powder labeled "Zinc Cyanide"	Total cyanide
S-17	7/22/2010	Grab, field sample	30-gallon fiber drum containing white powder labeled "Cyanogen"	Total cyanide
S-18	7/22/2010	Grab, field sample	1-gallon container containing clear liquid labeled "Paint Thinner"	Flashpoint
S-19	7/22/2010	Grab, field sample	8-ounce container containing brown liquid labeled "Flammable Liquid"	Flashpoint

Notes:

ID = Identification

RCRA = Resource Conservation and Recovery Act

TCLP = Toxicity Characteristic Leaching Procedure

Table 4-1
Summary of Sampling Results
Plate-Rite Plating Site
Dayton, Montgomery County, Ohio

Analysis	Regulatory Limit	Matrix	Liquid	Liquid	Liquid	Liquid	Liquid
		Sampling Date	7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010
		Field Sample ID	S-1	S-2	S-3	S-4	S-5
		Unit					
Flashpoint - Closed Cup	< 140	°F	NA	NA	NA	NA	73.2
pH	≤ 2 or ≥ 12.5 (liquids only)	Standard units	13.0	1.15	0	0	NA
Total Cyanide	No level	mg/kg	NA	NA	NA	NA	NA
TCLP RCRA Metals							
Arsenic	5.0	mg/L	NA	NA	NA	NA	NA
Barium	100.0	mg/L	NA	NA	NA	NA	NA
Cadmium	1.0	mg/L	NA	NA	NA	NA	NA
Chromium	5.0	mg/L	NA	NA	NA	NA	NA
Lead	5.0	mg/L	NA	NA	NA	NA	NA
Mercury	0.2	mg/L	NA	NA	NA	NA	NA
Selenium	1.0	mg/L	NA	NA	NA	NA	NA
Silver	5.0	mg/L	NA	NA	NA	NA	NA

Analysis	Regulatory Limit	Matrix	Liquid	Liquid	Solid	Liquid	Liquid
		Sampling Date	7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010
		Field Sample ID	S-6	S-7	S-8	S-9	S-10
		Unit					
Flashpoint - Closed Cup	< 140	°F	NA	NA	NA	NA	NA
pH	≤ 2 or ≥ 12.5 (liquids only)	Standard units	0.56	9.88	NA	1.19	0.74
Total Cyanide	No level	mg/kg or mg/L	NA	88,600 mg/L	244,000 mg/kg	NA	NA
TCLP RCRA Metals							
Arsenic	5.0	mg/L	ND	NA	NA	ND	17.1
Barium	100.0	mg/L	ND	NA	NA	1.44	6.5
Cadmium	1.0	mg/L	3.4	NA	NA	ND	ND
Chromium	5.0	mg/L	484	NA	NA	26,600	222,000
Lead	5.0	mg/L	ND	NA	NA	ND	45.8
Mercury	0.2	mg/L	ND	NA	NA	ND	0.0108
Selenium	1.0	mg/L	ND	NA	NA	ND	ND
Silver	5.0	mg/L	ND	NA	NA	ND	ND

Table 4-1
Summary of Sampling Results
Plate-Rite Plating Site
Dayton, Montgomery County, Ohio

Analysis	Regulatory Limit	Matrix	Liquid	Liquid	Liquid	Liquid	Solid
		Sampling Date	7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010
		Field Sample ID	S-11	S-12	S-13	S-14	S-15
		Unit					
Flashpoint - Closed Cup	< 140	°F	NA	NA	NA	NA	NA
pH	≤ 2 or ≥ 12.5 (liquids only)	Standard units	2.61	0.00	0.00	1.21	NA
Total Cyanide	No level	mg/kg	NA	NA	NA	NA	64.7
TCLP RCRA Metals							
Arsenic	5.0	mg/L	ND	NA	NA	NA	ND
Barium	100.0	mg/L	0.56	NA	NA	NA	ND
Cadmium	1.0	mg/L	ND	NA	NA	NA	ND
Chromium	5.0	mg/L	11,800	NA	NA	NA	1.42
Lead	5.0	mg/L	ND	NA	NA	NA	ND
Mercury	0.2	mg/L	ND	NA	NA	NA	0.00618
Selenium	1.0	mg/L	ND	NA	NA	NA	ND
Silver	5.0	mg/L	ND	NA	NA	NA	ND

Analysis	Regulatory Limit	Matrix	Solid	Solid	Liquid	Liquid
		Sampling Date	7/22/2010	7/22/2010	7/22/2010	7/22/2010
		Field Sample ID	S-16	S-17	S-18	S-19
		Unit				
Flashpoint - Closed Cup	< 140	°F	NA	NA	149	73.2
pH	≤ 2 or ≥ 12.5 (liquids only)	Standard units	NA	NA	NA	NA
Total Cyanide	No level	mg/kg	350,000	438,000	NA	NA
TCLP RCRA Metals						
Arsenic	5.0	mg/L	NA	NA	NA	NA
Barium	100.0	mg/L	NA	NA	NA	NA
Cadmium	1.0	mg/L	NA	NA	NA	NA
Chromium	5.0	mg/L	NA	NA	NA	NA
Lead	5.0	mg/L	NA	NA	NA	NA
Mercury	0.2	mg/L	NA	NA	NA	NA
Selenium	1.0	mg/L	NA	NA	NA	NA
Silver	5.0	mg/L	NA	NA	NA	NA

Table 4-1
Summary of Sampling Results
Plate-Rite Plating Site
Dayton, Montgomery County, Ohio

Notes:

Shaded and bolded results either exceed the hazardous waste regulatory limits in Title 40 of the *Code of Federal Regulations*, Part 261, Subpart C, or are cyanide-bearing wastes.

< = Less than

≤ = Less than or equal to

≥ = Greater than or equal to

°F = Degree Fahrenheit

ID = Identification

mg/kg = Milligram per kilogram

mg/L = Milligram per liter

NA = Not analyzed

ND = Not detected above method reporting limit

RCRA = Resource Conservation and Recovery Act

TCLP = Toxicity Characteristic Leaching Procedure

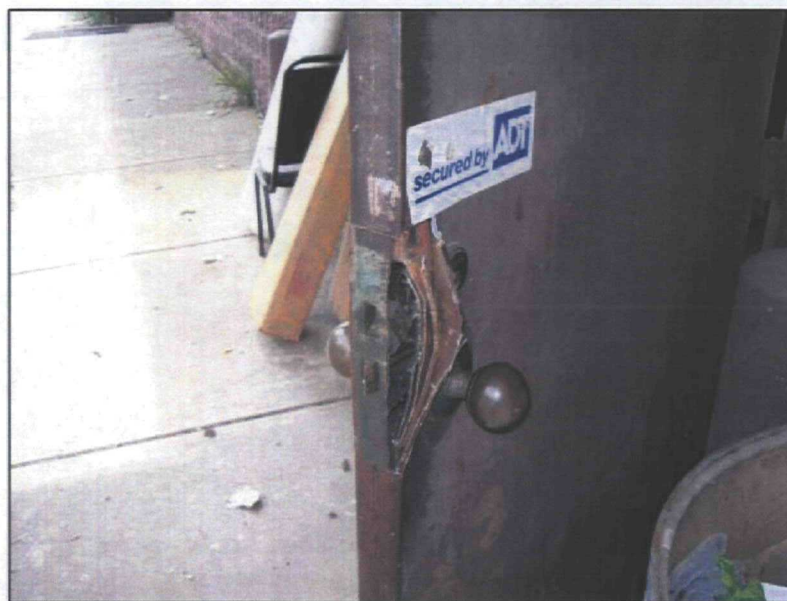


APPENDIX A
PHOTOGRAPHIC DOCUMENTATION



Site: Plate-Rite Plating Site
Photograph No.: 1
Direction: West
Subject: Entrance to on-site building

Date: 7/22/10
Photographer: John Sherrard



Site: Plate-Rite Plating Site
Photograph No.: 2
Direction: Down
Subject: Door located on north side of building damaged by trespassers

Date: 7/20/10
Photographer: John Sherrard



Site: Plate-Rite Plating Site

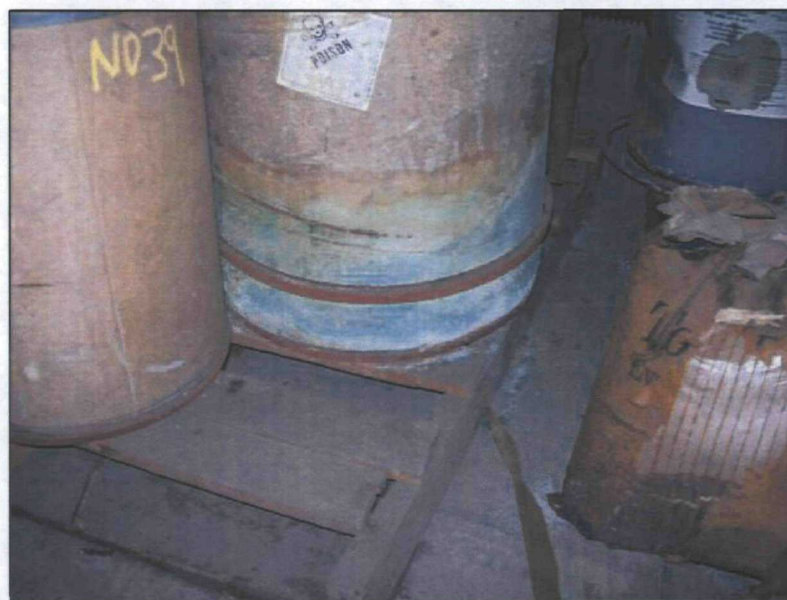
Photograph No.: 3

Direction: East

Subject: Laboratory

Date: 7/22/10

Photographer: John Sherrard



Site: Plate-Rite Plating Site

Photograph No.: 4

Direction: Down

Subject: Corroded fiber drum containing zinc cyanide

Date: 7/22/10

Photographer: John Sherrard



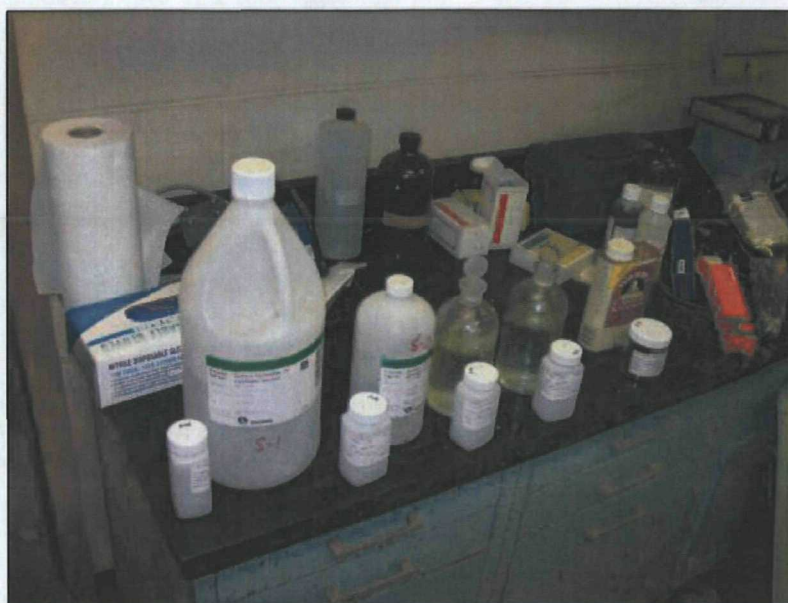
Site: Plate-Rite Plating Site
Photograph No.: 5
Direction: North
Subject: Drums containing pure cyanide

Date: 7/22/10
Photographer: John Sherrard



Site: Plate-Rite Plating Site
Photograph No.: 6
Direction: East
Subject: Abandoned plating line

Date: 7/22/10
Photographer: John Sherrard



Site: Plate-Rite Plating Site

Photograph No.: 7

Direction: Down

Subject: Investigative waste liquid samples S-1 through S-5

Date: 7/22/10

Photographer: John Sherrard



Site: Plate-Rite Plating Site

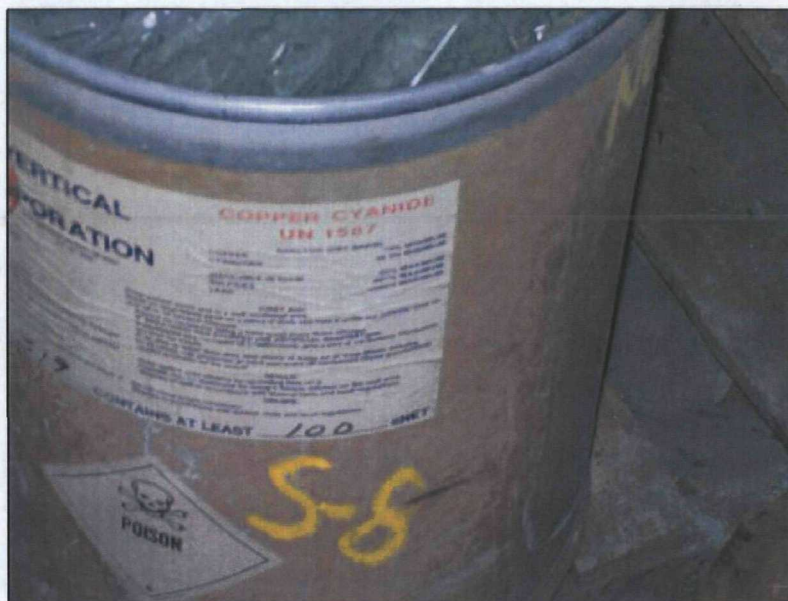
Photograph No.: 8

Direction: East

Subject: Plating tank from which investigative waste liquid sample S-6 was collected; sample had a pH of 0.56 SU

Date: 7/22/10

Photographer: Randy Kirkland



Site: Plate-Rite Plating Site

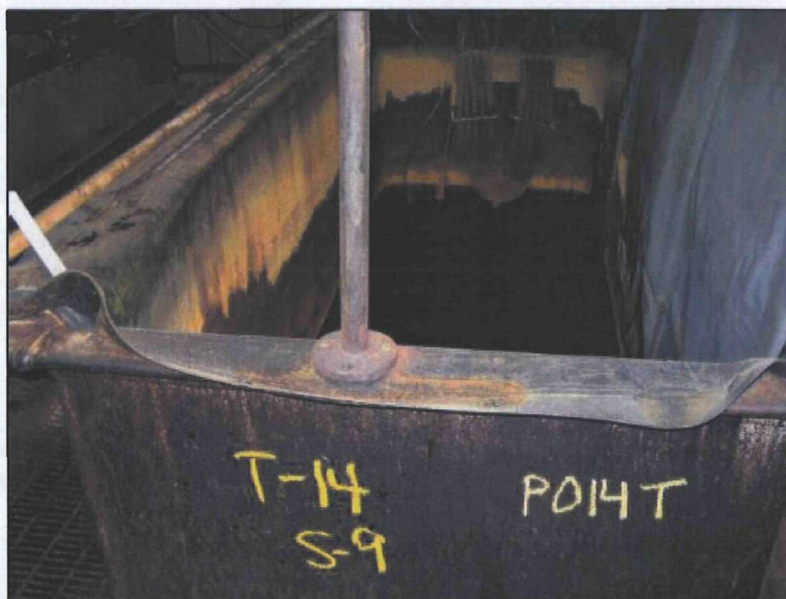
Photograph No.: 9

Date: 7/22/10

Direction: Down

Photographer: John Sherrard

Subject: Investigative solid sample S-8 collected from fiber drum labeled "Copper Cyanide"; sample had a total cyanide concentration of 244,000 mg/kg



Site: Plate-Rite Plating Site

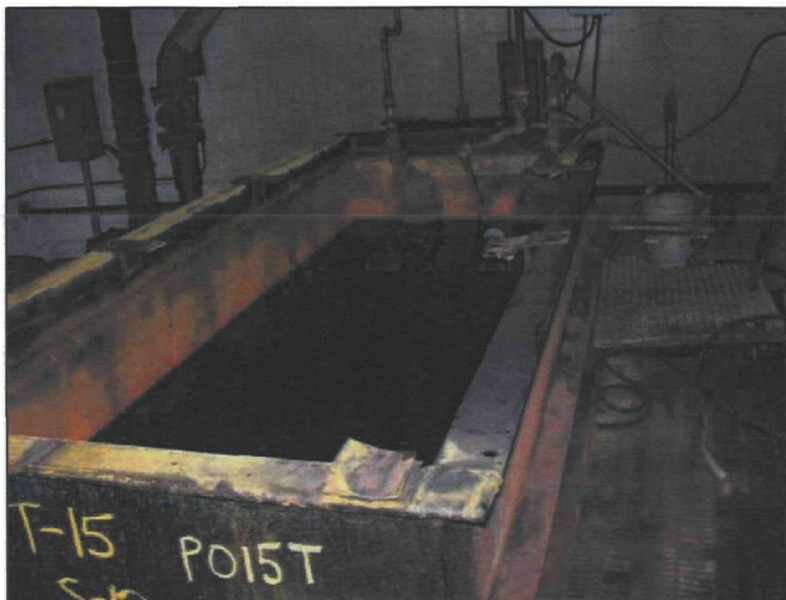
Photograph No.: 10

Date: 7/22/10

Direction: Down

Photographer: Randy Kirkland

Subject: Investigative waste liquid sampling location S-9; sample had a pH of 1.19 SU



Site: Plate-Rite Plating Site

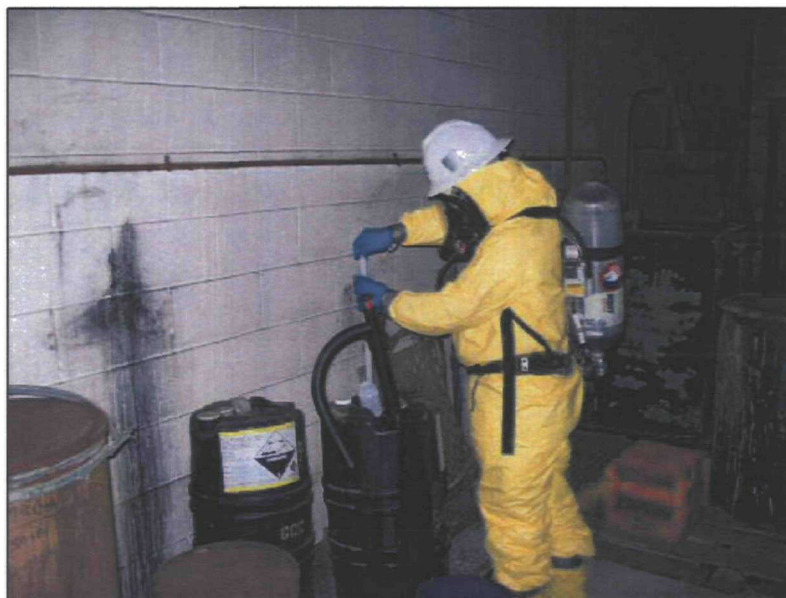
Photograph No.: 11

Date: 7/22/10

Direction: Down

Photographer: Randy Kirkland

Subject: Plating tank from which investigative waste liquid sample S-10 was collected; tank labeled "Chrome Saver"; sample had a TCLP chromium concentration of 222,000 mg/L



Site: Plate-Rite Plating Site

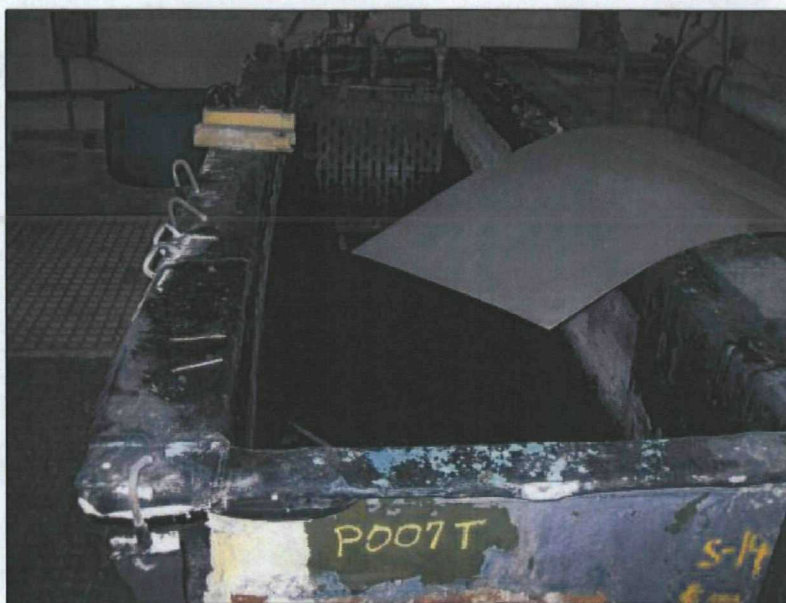
Photograph No.: 12

Date: 7/22/10

Direction: Northeast

Photographer: David Sena

Subject: WESTON START collecting investigative waste liquid sample S-13



Site: Plate-Rite Plating Site

Photograph No.: 13

Direction: Down

Subject: Investigative waste liquid sampling location S-14

Date: 7/22/10

Photographer: Randy Kirkland



Site: Plate-Rite Plating Site

Photograph No.: 14

Direction: Northwest

Subject: 55-gallon drum with a "Sulfuric Acid" label stored within 30 feet of investigative waste solid samples S-16 and S-17, which contained total cyanide at 350,000 and 438,000 mg/kg, respectively

Date: 7/22/10

Photographer: John Sherrard



Site: Plate-Rite Plating Site

Photograph No.: 15

Direction: West

Subject: Investigative waste liquid samples S-18 and S-19

Date: 7/22/10

Photographer: John Sherrard



Site: Plate-Rite Plating Site

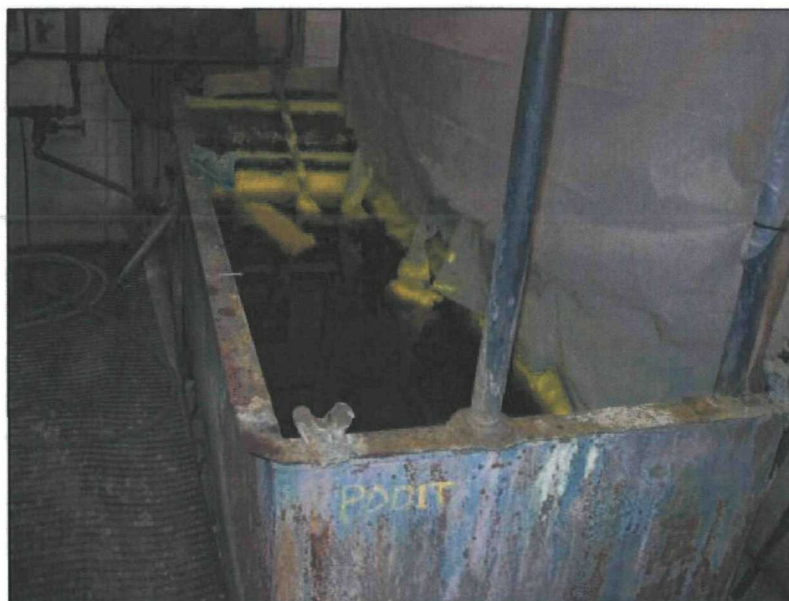
Photograph No.: 16

Direction: West

Subject: Abandoned 55-gallon drums and containers located west of main plating line

Date: 7/22/10

Photographer: John Sherrard



Site: Plate-Rite Plating Site

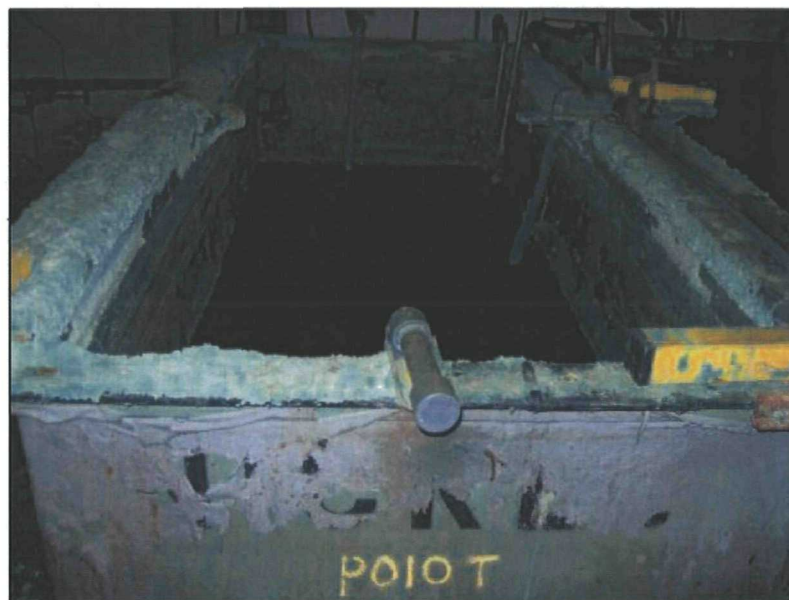
Photograph No.: 17

Direction: Down

Subject: Abandoned plating vat labeled "Cleaner"

Date: 7/22/10

Photographer: Randy Kirkland



Site: Plate-Rite Plating Site

Photograph No.: 18

Direction: Down

Subject: Abandoned plating vat labeled "Bright Nickel"

Date: 7/22/10

Photographer: Randy Kirkland



APPENDIX B
DATA VALIDATION REPORT AND VALIDATED ANALYTICAL
RESULTS

**PLATE-RITE PLATING SITE
DAYTON, OHIO
DATA VALIDATION REPORT**

Date: August 16, 2010

Laboratory: Belmont Labs, Englewood, Ohio

Laboratory Project #: 10G1153

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund Technical Assessment and Response Team (START)

Weston Analytical Work Order #/TDD #: 20405.016.001.1110.00/S05-0001-1006-040

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 15 waste liquid and 4 waste solid samples collected for the Plate-Rite Plating Site that were analyzed for the following parameters and U.S. Environmental Protection Agency (U.S. EPA) methods:

- Toxicity Characteristic Leaching Procedure (TCLP) Metals by SW-846 Methods 1311, 6010B, and 7470A
- Total Cyanide by 335.4
- Ignitability (flashpoint) by ASTM Method D56-05
- Corrosivity (pH) by Standard Method (SM) 4500 H+

A level II data package was requested from Belmont Labs. The data validation was conducted in general accordance with the U.S. EPA "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with any hand-written qualifiers applied during data validation.

TCLP METALS BY METHODS 1311, 6010B, AND 7470A

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
S-6	10G1153-06	Liquid	7/22/2010	7/28/2010
S-9	10G1153-09	Liquid	7/22/2010	7/28/2010 – 7/29/2010
S-10	10G1153-10	Liquid	7/22/2010	7/28/2010 – 7/29/2010
S-11	10G1153-11	Liquid	7/22/2010	7/28/2010 – 7/29/2010
S-15	10G1153-15	Solid	7/22/2010	7/28/2010

2. Holding Times

The samples were analyzed within the required holding time limit of 28 days from sample collection to analysis for mercury and 180 days from sample collection to analysis for all other metals.

3. Blank Results

Method blanks were analyzed with the TCLP metals analyses. The blanks were free of target analyte contamination above the reporting limits.

4. Laboratory Control Sample (LCS) Results

The LCS and LCS duplicate recoveries were within the laboratory-established quality control (QC) limits for target analytes. The relative percent differences (RPD) between the LCS and its duplicate were within the QC limit.

5. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Belmont Labs analyzed an MS and MSD using a sample from another site. The percent recoveries and RPDs were within the laboratory QC limits.

6. Overall Assessment

The metals data are acceptable for use based on the information received.

GENERAL CHEMISTRY PARAMETERS (Total Cyanide by 335.4, Ignitability (flashpoint) by ASTM Method D56-05, and Corrosivity (pH) by SM 4500 H+)

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed	Parameter Analyzed
S-1	10G1153-01	Liquid	7/22/2010	7/28/2010	pH
S-2	10G1153-02	Liquid	7/22/2010	7/28/2010	pH
S-3	10G1153-03	Liquid	7/22/2010	7/28/2010	pH
S-4	10G1153-04	Liquid	7/22/2010	7/28/2010	pH
S-5	10G1153-05	Liquid	7/22/2010	7/29/2010	Ignitability
S-6	10G1153-06	Liquid	7/22/2010	7/28/2010	pH
S-7	10G1153-07	Liquid	7/22/2010	7/28/2010	pH, Cyanide
S-8	10G1153-08	Solid	7/22/2010	7/28/2010	Cyanide
S-9	10G1153-09	Liquid	7/22/2010	7/28/2010	pH
S-10	10G1153-10	Liquid	7/22/2010	7/28/2010	pH
S-11	10G1153-11	Liquid	7/22/2010	7/28/2010	pH
S-12	10G1153-12	Liquid	7/22/2010	7/28/2010	pH
S-13	10G1153-13	Liquid	7/22/2010	7/28/2010	pH
S-14	10G1153-14	Liquid	7/22/2010	7/28/2010	pH
S-15	10G1153-15	Solid	7/22/2010	7/28/2010	Cyanide
S-16	10G1153-16	Solid	7/22/2010	7/28/2010	Cyanide
S-17	10G1153-17	Solid	7/22/2010	7/28/2010	Cyanide
S-18	10G1153-18	Liquid	7/22/2010	7/29/2010	Ignitability
S-19	10G1153-19	Liquid	7/22/2010	7/29/2010	Ignitability

2. Holding Times

Because the samples were concentrated waste samples, the holding times for ignitability, pH, and cyanide were acceptable.

3. Blank Results

Method blanks were analyzed with the cyanide analyses. There were no detections of cyanide in the method blanks above the reporting limit.

Data Validation Report
Plate-Rite Plating Site
Belmont Labs.
Laboratory Project #: 10G1153

4. **LCS Results**

An LCS was analyzed with the ignitability, pH, and cyanide analyses. The percent recoveries were within QC limits.

5. **Overall Assessment**

The cyanide, ignitability, and pH data are acceptable for use based on the information received.

Data Validation Report
Plate-Rite Plating Site
Belmont Labs.
Laboratory Project #: 10G1153

ATTACHMENT

**BELMONT LABS
RESULTS SUMMARY**

Monday, August 2, 2010



Lisa Graczyk

Weston Solutions, Inc.- Chicago
20 N. Wacker Drive, Suite 1210
Chicago, IL 60606

TEL: 3124243300

FAX 3124243330

RE: 20405.016.001.1110.00/Plate-Rite Plating

Work Order: 10G1153

Belmont Labs received 19 sample(s) on 7/22/2010 for the analyses presented in the following report.

Belmont Labs attests that all analytical methods were performed using acceptable methods, and that the QA/QC procedures stipulated in these methods were followed. USEPA's RCRA Program regards a statement of quality assurance as a legal means of assuring that acceptable and uniform laboratory methods and QA/QC practices were followed by the laboratory.

If you have any questions regarding the test results, please feel free to call me at (937) 832-8242.

Respectfully submitted,

Holly Green
Project Manager

Certifications:

NELAP/NELAC - #04130
Ohio EPA Drinking water - #836

VAP - #CL0032
Ohio EPA Drinking water (Micro) - #872

25 Holiday Drive * Englewood, Ohio 45322 * 1.937.832.8242 * 1.937.832.2868 Fax

CLIENT: Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating

Lab Order: 10G1153

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Sampled Date	Received Date
10G1153-01A	S-1	7/22/2010 12:00:00AM	7/22/2010
10G1153-02A	S-2	7/22/2010 12:00:00AM	7/22/2010
10G1153-03A	S-3	7/22/2010 12:00:00AM	7/22/2010
10G1153-04A	S-4	7/22/2010 12:00:00AM	7/22/2010
10G1153-05A	S-5	7/22/2010 12:00:00AM	7/22/2010
10G1153-06A	S-6	7/22/2010 12:00:00AM	7/22/2010
10G1153-06B	S-6	7/22/2010 12:00:00AM	7/22/2010
10G1153-07A	S-7	7/22/2010 12:00:00AM	7/22/2010
10G1153-07B	S-7	7/22/2010 12:00:00AM	7/22/2010
10G1153-08A	S-8	7/22/2010 12:00:00AM	7/22/2010
10G1153-08B	S-8	7/22/2010 12:00:00AM	7/22/2010
10G1153-09A	S-9	7/22/2010 12:00:00AM	7/22/2010
10G1153-09B	S-9	7/22/2010 12:00:00AM	7/22/2010
10G1153-10A	S-10	7/22/2010 12:00:00AM	7/22/2010
10G1153-10B	S-10	7/22/2010 12:00:00AM	7/22/2010
10G1153-11A	S-11	7/22/2010 12:00:00AM	7/22/2010
10G1153-11B	S-11	7/22/2010 12:00:00AM	7/22/2010
10G1153-12A	S-12	7/22/2010 12:00:00AM	7/22/2010
10G1153-13A	S-13	7/22/2010 12:00:00AM	7/22/2010
10G1153-14A	S-14	7/22/2010 12:00:00AM	7/22/2010
10G1153-15A	S-15	7/22/2010 12:00:00AM	7/22/2010
10G1153-16A	S-16	7/22/2010 12:00:00AM	7/22/2010
10G1153-16B	S-16	7/22/2010 12:00:00AM	7/22/2010
10G1153-17A	S-17	7/22/2010 12:00:00AM	7/22/2010
10G1153-17B	S-17	7/22/2010 12:00:00AM	7/22/2010
10G1153-18A	S-18	7/22/2010 12:00:00AM	7/22/2010
10G1153-19A	S-19	7/22/2010 12:00:00AM	7/22/2010

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-01
Client Sample ID: S-1**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
pH	SM 4500 H+						Analyst: PR
pH	13.0		H	pH Units	1	1031191	7/28/2010 2:49:12PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-02
Client Sample ID: S-2**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
pH	SM 4500 H+						Analyst: PR
pH	1.15		H	pH Units	I	1031191	7/28/2010 2:49:12PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-03
Client Sample ID: S-3**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
pH	SM 4500 H+						
pH	0.00		H	pH Units	1	1031191	7/28/2010 2:49:12PM

Analyst: PR

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-04
Client Sample ID: S-4**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
pH	SM 4500 H+						Analyst: PR
pH	0.00		H	pH Units	I	1031191	7/28/2010 2:49:12PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-05
Client Sample ID: S-5**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
FLASH	D56-05						
Flashpoint	73.2	60.0	A-01	°F	I	1031252	7/29/2010 11:57:00AM

Analyst: CLM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-06
Client Sample ID: S-6**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
TCLP_Ag	SW 6010B					Analyst: RJE	
TCLP Silver	BDL	0.500		mg/L	1	1031165	7/28/2010 2:03:31PM
TCLP_As	SW 6010B					Analyst: RJE	
TCLP Arsenic	BDL	5.00		mg/L	1	1031165	7/28/2010 2:03:31PM
TCLP_Ba	SW 6010B					Analyst: RJE	
TCLP Barium	BDL	0.500		mg/L	1	1031165	7/28/2010 2:03:31PM
TCLP_Cd	SW 6010B					Analyst: RJE	
TCLP Cadmium	3.40	0.500		mg/L	1	1031165	7/28/2010 2:03:31PM
TCLP_Cr	SW 6010B					Analyst: RJE	
TCLP Chromium	484	0.500		mg/L	1	1031165	7/28/2010 2:03:31PM
TCLP_Pb	SW 6010B					Analyst: RJE	
TCLP Lead	BDL	2.50		mg/L	1	1031165	7/28/2010 2:03:31PM
TCLP_Se	SW 6010B					Analyst: RJE	
TCLP Selenium	BDL	5.00		mg/L	1	1031165	7/28/2010 2:03:31PM
TCLP_Hg	SW 7470					Analyst: KC	
TCLP Mercury	BDL	0.00800		mg/L	1	1031169	7/28/2010 12:46:00PM
pH	SM 4500 H+					Analyst: PR	
pH	0.560		H	pH Units	1	1031191	7/28/2010 2:49:12PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-07**Collection Date:** 7/22/2010 12:00:00AM**Client Sample ID:** S-7**Matrix:** Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
CN_T	EPA 335.4						
Cyanide, Total	88600	2000		mg/L	200000	1031220	7/28/2010 3:20:00PM
pH	SM 4500 H+						
pH	9.88		H	pH Units	1	1031191	7/28/2010 2:49:12PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-08
Client Sample ID: S-8**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
CN_T	EPA 335.4						
Cyanide, Total	244000	9800		mg/kg wet	980400	1031143	7/28/2010 3:20:00PM

Analyst: CLM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-09
Client Sample ID: S-9**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
TCLP_Ag	SW 6010B					Analyst: RJE	
TCLP Silver	BDL	0.500		mg/L	1	1031165	7/28/2010 2:07:39PM
TCLP_As	SW 6010B					Analyst: RJE	
TCLP Arsenic	BDL	5.00		mg/L	1	1031165	7/28/2010 2:07:39PM
TCLP_Ba	SW 6010B					Analyst: RJE	
TCLP Barium	1.44	0.500		mg/L	1	1031165	7/28/2010 2:07:39PM
TCLP_Cd	SW 6010B					Analyst: RJE	
TCLP Cadmium	BDL	0.500		mg/L	1	1031165	7/28/2010 2:07:39PM
TCLP_Cr	SW 6010B					Analyst: RJE	
TCLP Chromium	26600	50.0		mg/L	100	1031165	7/29/2010 1:31:34PM
TCLP_Pb	SW 6010B					Analyst: RJE	
TCLP Lead	BDL	2.50		mg/L	1	1031165	7/28/2010 2:07:39PM
TCLP_Se	SW 6010B					Analyst: RJE	
TCLP Selenium	BDL	5.00		mg/L	1	1031165	7/28/2010 2:07:39PM
TCLP_Hg	SW 7470					Analyst: KC	
TCLP Mercury	BDL	0.00800		mg/L	1	1031169	7/28/2010 12:46:00PM
pH	SM 4500 H+					Analyst: PR	
pH	1.19		H	pH Units	1	1031191	7/28/2010 2:49:12PM

Belmont Labs

Date: 8/2/2010

CLIENT: Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-10
Client Sample ID: S-10**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
TCLP_Ag	SW 6010B					Analyst: RJE	
TCLP Silver	BDL	0.500		mg/L	1	1031165	7/28/2010 2:20:23PM
TCLP_As	SW 6010B					Analyst: RJE	
TCLP Arsenic	17.1	5.00		mg/L	1	1031165	7/28/2010 2:20:23PM
TCLP_Ba	SW 6010B					Analyst: RJE	
TCLP Barium	6.50	0.500		mg/L	1	1031165	7/28/2010 2:20:23PM
TCLP_Cd	SW 6010B					Analyst: RJE	
TCLP Cadmium	BDL	0.500		mg/L	1	1031165	7/28/2010 2:20:23PM
TCLP_Cr	SW 6010B					Analyst: RJE	
TCLP Chromium	222000	500		mg/L	1000	1031165	7/29/2010 1:35:14PM
TCLP_Pb	SW 6010B					Analyst: RJE	
TCLP Lead	45.8	2.50		mg/L	1	1031165	7/28/2010 2:20:23PM
TCLP_Se	SW 6010B					Analyst: RJE	
TCLP Selenium	BDL	5.00		mg/L	1	1031165	7/28/2010 2:20:23PM
TCLP_Hg	SW 7470					Analyst: KC	
TCLP Mercury	0.0108	0.00800		mg/L	1	1031169	7/28/2010 12:46:00PM
pH	SM 4500 H+					Analyst: PR	
pH	0.740		H	pH Units	1	1031191	7/28/2010 2:49:12PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-11
Client Sample ID: S-11**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
TCLP_Ag	SW 6010B					Analyst: RJE	
TCLP Silver	BDL	0.500		mg/L	1	1031165	7/28/2010 2:30:10PM
TCLP_As	SW 6010B					Analyst: RJE	
TCLP Arsenic	BDL	5.00		mg/L	1	1031165	7/28/2010 2:30:10PM
TCLP_Ba	SW 6010B					Analyst: RJE	
TCLP Barium	0.560	0.500		mg/L	1	1031165	7/28/2010 2:30:10PM
TCLP_Cd	SW 6010B					Analyst: RJE	
TCLP Cadmium	BDL	0.500		mg/L	1	1031165	7/28/2010 2:30:10PM
TCLP_Cr	SW 6010B					Analyst: RJE	
TCLP Chromium	11800	50.0		mg/L	100	1031165	7/29/2010 1:38:54PM
TCLP_Pb	SW 6010B					Analyst: RJE	
TCLP Lead	BDL	2.50		mg/L	1	1031165	7/28/2010 2:30:10PM
TCLP_Se	SW 6010B					Analyst: RJE	
TCLP Selenium	BDL	5.00		mg/L	1	1031165	7/28/2010 2:30:10PM
TCLP_Hg	SW 7470					Analyst: KC	
TCLP Mercury	BDL	0.00800		mg/L	1	1031169	7/28/2010 12:46:00PM
pH	SM 4500 H+					Analyst: PR	
pH	2.61		H	pH Units	1	1031191	7/28/2010 2:49:12PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-12
Client Sample ID: S-12**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
pH	SM 4500 H+						Analyst: PR
pH	0.00		H	pH Units	I	1031191	7/28/2010 2:49:12PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-13
Client Sample ID: S-13**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
pH	SM 4500 H+						Analyst: PR
pH	0.00		H	pH Units	1	1031191	7/28/2010 2:49:12PM

Belmont Labs

Date: 8/2/2010

CLIENT: Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating

Lab Order: 10G1153

Lab ID: 10G1153-14
Client Sample ID: S-14

Collection Date: 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
pH	SM 4500 H+						Analyst: PR
pH	1.21		H	pH Units	1	1031191	7/28/2010 2:49:12PM

Belmont Labs

Date: 8/2/2010

CLIENT: Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating

Lab Order: 10G1153

Lab ID: 10G1153-15
Client Sample ID: S-15

Collection Date: 7/22/2010 12:00:00AM
Matrix: Soil

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
TCLP_Ag	SW 6010B					Analyst: RJE	
TCLP Silver	BDL	0.500		mg/L	1	1031165	7/28/2010 2:39:22PM
TCLP_As	SW 6010B					Analyst: RJE	
TCLP Arsenic	BDL	5.00		mg/L	1	1031165	7/28/2010 2:39:22PM
TCLP_Ba	SW 6010B					Analyst: RJE	
TCLP Barium	BDL	0.500		mg/L	1	1031165	7/28/2010 2:39:22PM
TCLP_Cd	SW 6010B					Analyst: RJE	
TCLP Cadmium	BDL	0.500		mg/L	1	1031165	7/28/2010 2:39:22PM
TCLP_Cr	SW 6010B					Analyst: RJE	
TCLP Chromium	1.42	0.500		mg/L	1	1031165	7/28/2010 2:39:22PM
TCLP_Pb	SW 6010B					Analyst: RJE	
TCLP Lead	BDL	2.50		mg/L	1	1031165	7/28/2010 2:39:22PM
TCLP_Se	SW 6010B					Analyst: RJE	
TCLP Selenium	BDL	5.00		mg/L	1	1031165	7/28/2010 2:39:22PM
TCLP_Hg	SW 7470					Analyst: KC	
TCLP Mercury	0.00618	0.00160		mg/L	1	1031169	7/28/2010 12:46:00PM
CN_T	EPA 335.4					Analyst: CLM	
Cyanide, Total	64.7	5.78		mg/kg dry	463	1031143	7/28/2010 3:20:00PM
PMOIST	D 2216					Analyst: AD	
Percent Moisture	19.8			% by Weight	1	1031217	7/28/2010 2:00:00PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-16
Client Sample ID: S-16**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Soil

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
CN_T	EPA 335.4						
Cyanide, Total	350000	10600		mg/kg dry	806400	1031143	7/28/2010 3:20:00PM
PMOIST	D 2216						
Percent Moisture	23.7			% by Weight	1	1031217	7/28/2010 2:00:00PM

Belmont Labs

Date: 8/2/2010

CLIENT: Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating

Lab Order: 10G1153

Lab ID: 10G1153-17
Client Sample ID: S-17

Collection Date: 7/22/2010 12:00:00AM
Matrix: Soil

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
CN_T	EPA 335.4						
Cyanide, Total	438000	10300		mg/kg dry	1020400	1031143	7/28/2010 3:20:00PM
PMOIST	D 2216						
Percent Moisture	1.22			% by Weight	1	1031217	7/28/2010 2:00:00PM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-18**Collection Date:** 7/22/2010 12:00:00AM**Client Sample ID:** S-18**Matrix:** Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
FLASH	D56-05						Analyst: CLM
Flashpoint	149	60.0	C	°F	I	1031252	7/29/2010 11:57:00AM

Belmont Labs**Date:** 8/2/2010**CLIENT:** Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating**Lab Order:** 10G1153**Lab ID:** 10G1153-19
Client Sample ID: S-19**Collection Date:** 7/22/2010 12:00:00AM
Matrix: Water

Analysis	Result	PQL	Qual	Units	Dilution	Batch	Date Analyzed
FLASH	D56-05						
Flashpoint	73.2	60.0	A-01a	°F	I	1031252	7/29/2010 11:57:00AM

Analyst: CLM

CLIENT: Weston Solutions, Inc.- Chicago
Project: 20405.016.001.1110.00/Plate-Rite Plating

Lab Order: 10G1153**Notes and Definitions**

H Analysis completed outside of holding time.

C Sample Result Confirmed

A-01a Analysis was performed using open-cup method due to sample matrix. Sample flashed at room temperature.

A-01 Analysis performed by open-cup method due to sample matrix. Sample flashed at room temperature.

Sample preservation was met unless otherwise noted.